








# Programming Guide - Overview

This documentation applies to all platforms on which Natural can be used. It provides basic information on various aspects of programming with Natural. You should be familiar with this information before you start to write Natural applications.

-  **Defining Fields** Describes how you define the fields you wish to use in a program.
-  **Database Access** Describes various aspects of using Natural to access data in a database.
-  **Output of Data** Discusses various aspects of how you can control the format of an output report created with Natural, that is, the way in which the data are displayed.
-  **Object Types** Within an application, you can use several types of programming objects to achieve an efficient application structure. This section discusses the various types of Natural programming objects: data areas, programs, subprograms, subroutines, help routines, maps, etc.
-  **Further Programming Aspects** Discusses various other aspects of programming with Natural.
-  **Reporting Mode and Structured Mode** Describes the differences between the two Natural programming modes.
-  **Portable Natural Generated Programs** As of Natural 5, generated programs are portable across the platforms UNIX, OpenVMS and Windows.

## Example Programs

This documentation contains several examples of Natural programs, as well as references to further example programs not shown in the documentation.

All these programs are also provided in source-code form in the Natural library "SYSEXPG". (The programs are all written in structured mode.)

Further example programs of using Natural statements are provided in the Natural library "SYSEXRM".

Please ask your Natural administrator about the availability of these libraries at your site.

The example programs use data from the files "EMPLOYEES" and "VEHICLES", which are supplied by Software AG for demonstration purposes.

## Programming Modes

Natural offers two ways of programming: reporting mode and structured mode. Generally, it is recommended to use structured mode exclusively, because it provides for more clearly structured applications. Therefore all explanations and examples in this documentation refer to structured mode. Any peculiarities of reporting mode will not be taken into consideration. (For differences between the two modes, please refer to Reporting Mode and Structured Mode.)